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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/340,218	06/25/1999	GEORGE G. CHADWICK	MGC9901	3626
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25696                      7590                      05/08/2002

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EXAMINER
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WEST, LEWIS G

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/340,218

Applicant(s)

CHADWICK, GEORGE G.

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities: On line 13 of page 10, the statement “the Radio R detects and signal...” appears to be a grammatical error. Appropriate correction is required.

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection. Arguments related to subject matter not contained in the original specification will not be considered, specifically the explanations of “evanescent waves” and “waves below cutoff”, which, as applicant admits, are not a part of the original application.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6-8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Loposer (US 5,230,085).

Regarding claim 1, Loposer discloses a method comprising the steps of: generating a radio frequency signal; feeding said radio frequency signal to a conductor; said conductor generally being within a structure; creating a quasi-static non-propagating electromagnetic field {near field} within said structure; and using said electromagnetic field to convey said radio frequency signal to a receiver generally located within said structure. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24)

Regarding claim 6, Loposer discloses a method in which the signal is generated using a frequency band that does not generally cause interference outside the structure in the HF band. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24)

Regarding claim 7, Loposer discloses a method in which the radio frequency is fed to a conductor using a direct hardwired connection. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24)

Regarding claim 8, Loposer discloses a method in which the radio frequency is transmitted to said conductor. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24)

Regarding claim 11, Loposer discloses that the conductor may be part of a structural member. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24)

6. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Mead et al. (US 4,698,639).

Regarding claim 14, Mead discloses an electromagnetic field system, comprising: a structure including an electrically conductive grid array having a grid opening size; and means for generating a quasi-static non-propagating electromagnetic field within said structure by feeding a frequency signal into said electrically conductive grid array; wherein the frequency of said frequency signal is selected such that the dimension of the grid opening size is small relative to the wavelength of said frequency signal. (Column 4 line 54- column 5 line 27)

Regarding claim 15, Mead discloses a system wherein the frequency of said frequency signal is selected such that the wavelength is greater than twice the dimension of the grid opening size. (Column 4 line 54- column 5 line 27)

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loposer in view of examiner's Official Notice.

Regarding claim 2, Loposer discloses generating the signal in the Radio Frequency band. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24) Examiner takes Official notice that it would have been notoriously obvious to one of ordinary skill in the art that the High Frequency band falls within the radio frequency band, and different parts of said RF band may be used in

different situations. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the High Frequency band in order to provide a proper wavelength in a structure of a specific size.

Regarding claim 3, Loposer discloses generating the signal in the Very High Frequency band. (Col. 2 line 13- col. 3 line 2; col. 4 line 45 – col. 5 line 24) Examiner takes Official notice that it would have been notoriously obvious to one of ordinary skill in the art that the Very High Frequency band falls within the radio frequency band, and different parts of said RF band may be used in different situations. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the Very High Frequency band in order to provide a proper wavelength in a structure of a specific size.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loposer in view of Kuo.

Regarding claim 9, Loposer does not expressly disclose a method in which the conductor is a wire. Kuo disclose a method in which the conductor is an electrical wire. (Col. 2 line 40-col. 3 line 25) Therefore it would have been obvious to use a wire to conduct an electromagnetic field as electrical wires are commonly found in occupied structures.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loposer in view of Needle et al.

Regarding claim 10, Loposer does not expressly disclose the use of a water pipe as a conductor. However, Needle discloses a method in which a water pipe is used as a conductor.

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(col. 2 lines 47-52) Therefore it would have been obvious to one of ordinary skill in the art to use a water pipe, an item commonly found in structures, as a conductive element, as they are commonly used as ground conductors.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loposer in view of Schimmeyer et al.

Regarding claim 13, Loposer does not expressly disclose installing a receiver by inserting a power plug into a conventional electrical socket; and feeding said signal to said conductor through a third ground plug on said power plug. Schimmeyer, however, discloses installing a receiver by inserting a power plug into a conventional electrical socket; and feeding said signal to said conductor through a third ground plug on said power plug. (col. 3,4) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to eliminate extra wiring in the implementation of the method.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 703-308-9298. The examiner can normally be reached on Monday-Thursday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 703-305-4778. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



Lewis West  
(703) 308-9298  
May 2, 2002



DWAYNE BOST  
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